

ABSTRACT

A rotor assembly is disclosed for use with an alternator. The rotor assembly includes a bobbin assembly, a claw pole assembly having an integrated hub on which the bobbin assembly is positioned, a shaft that is received in the claw pole assembly, and a slipring assembly connected to the shaft. The bobbin assembly includes thin first and second end caps, a metal sleeve, a ring of inner tape, a field coil, and a ring of outer tape. The first and second end caps each have inner and outer flaps. The inner flaps are folded inwardly so that the end caps fit over the metal sleeve. The ring of inner tape is wrapped around the inner flaps of both end caps to adhere the first and second end caps to the metal sleeve. The field coil is wrapped around the inner ring of tape, inner end caps, and metal sleeve. The outer flaps on the end caps are inwardly folded around the field coil. The ring of outer tape is adhered to the folded outer flaps and the field coil. The claw pole assembly includes a front claw pole section and a rear claw pole section.